

Docket No. RSW920000150US1

**CLAIMS:**

What is claimed is:

- 1 1.A method for measuring quality of machine translation,  
2 comprising:  
3       receiving an original source language text;  
4       repeatedly translating and retranslating the  
5 original source language text between the source language  
6 and a target language until a current source language  
7 text is not reasonably equivalent to the original source  
8 language text or until an iteration threshold is reached;  
9 and  
10       identifying the translation as low quality if the  
11 current source language text is not reasonably equivalent  
12 to the original source language text.
- 1 2.The method of claim 1, wherein translation and  
2 retranslation are performed by a translation software  
3 program.
- 1 3.The method of claim 1, wherein translation and  
2 retranslation are performed by a hardware translation  
3 device.
- 1 4.A method for measuring quality of machine translation,  
2 comprising:  
3 a) receiving an original source language text  $SHLx_0$ ;  
4 b) setting a counter  $i$  to zero;  
5 c) performing machine translation on source language

Docket No. RSW920000150US1

6 text  $SHLx_i$  to form target language text  $THLy_i$ ;  
7 d) performing machine translation on target language  
8 text  $THLy_i$  to form source language text  $SHLx_{i+1}$ ;  
9 e) increment  $i$  by one; and  
10 f) repeat steps (c) through (e) until  $SHLx_i$  is not  
11 reasonably equivalent to  $SHLx_0$  or until  $i$  reaches an  
12 iteration threshold.

51 5. The method of claim 4, further comprising:

52 g) identifying the target language text as low quality  
53 if a source language text  $SHLx_i$  is not reasonably  
54 equivalent to the original source language text.

55 6. The method of claim 4, wherein  $SHLx_i$  is reasonably  
56 equivalent to  $SHLx_0$  if  $SHLx_i$  is similar in size within a  
57 given threshold to  $SHLx_0$ .

58 7. The method of claim 4, wherein  $SHLx_i$  is reasonably  
59 equivalent to  $SHLx_0$  if  $SHLx_i$  contains the same number of  
60 words as  $SHLx_0$  within a given threshold.

61 8. The method of claim 4, wherein  $SHLx_i$  is reasonably  
62 equivalent to  $SHLx_0$  if  $SHLx_i$  contain the same set of  
63 keywords as  $SHLx_0$  within a given threshold.

64 9. The method of claim 4, wherein  $SHLx_i$  is reasonably  
65 equivalent to  $SHLx_0$  if  $SHLx_i$  generates the same  
66 Translation Confidence Indices as  $SHLx_0$  within a given  
67 threshold.

Docket No. RSW920000150US1

1 10. An apparatus for measuring quality of machine  
2 translation, comprising:

3 receipt means for receiving an original source  
4 language text;

5 translation means for repeatedly translating and  
6 retranslating the original source language text between  
7 the source language and a target language until a current  
8 source language text is not reasonably equivalent to the  
9 original source language text or until an iteration  
10 threshold is reached; and

11 identification means for identifying the translation  
12 as low quality if the current source language text is not  
13 reasonably equivalent to the original source language  
14 text.

1 11. The apparatus of claim 10, wherein the translation  
2 means comprises a translation software program.

1 12. The apparatus of claim 10, wherein the translation  
2 means comprises a hardware translation device.

1 13. An apparatus for measuring quality of machine  
2 translation, comprising:

3 a processor; and

4 a memory having stored therein a program for  
5 execution by the processor to perform the following  
6 steps:

7 a) receiving an original source language text

8  $SHLx_0$ ;

9 b) setting a counter  $i$  to zero;

Docket No. RSW920000150US1

- 10 c) performing machine translation on source  
11 language text  $SHLx_i$  to form target language text  
12  $THLy_i$ ;  
13 d) performing machine translation on target  
14 language text  $THLy_i$  to form source language text  
15  $SHLx_{i+1}$ ;  
16 e) increment  $i$  by one; and  
17 f) repeat steps (c) through (e) until  $SHLx_i$  is not  
18 reasonably equivalent to  $SHLx_0$  or until  $i$  reaches an  
19 iteration threshold.

20 14. The apparatus of claim 13, wherein the target language  
21 text is identified as low quality if a source language  
22 text  $SHLx_i$  is not reasonably equivalent to the original  
23 source language text.

24 15. The apparatus of claim 13, wherein  $SHLx_i$  is reasonably  
25 equivalent to  $SHLx_0$  if  $SHLx_i$  is similar in size within a  
26 given threshold to  $SHLx_0$ .

27 16. The apparatus of claim 13, wherein  $SHLx_i$  is reasonably  
28 equivalent to  $SHLx_0$  if  $SHLx_i$  contains the same number of  
29 words as  $SHLx_0$  within a given threshold.

30 17. The apparatus of claim 13, wherein  $SHLx_i$  is reasonably  
31 equivalent to  $SHLx_0$  if  $SHLx_i$  contain the same set of  
32 keywords as  $SHLx_0$  within a given threshold.

33 18. The apparatus of claim 13, wherein  $SHLx_i$  is reasonably  
34 equivalent to  $SHLx_0$  if  $SHLx_i$  generates the same

Docket No. RSW920000150US1

3 Translation Confidence Indices as  $SHLx_0$  within a given  
4 threshold.

1 19.A computer program product, in a computer readable  
2 medium, for measuring quality of machine translation,  
3 comprising:

4 instructions for receiving an original source  
5 language text;

6 instructions for repeatedly translating and  
7 retranslating the original source language text between  
8 the source language and a target language until a current  
9 source language text is not reasonably equivalent to the  
10 original source language text or until an iteration  
11 threshold is reached; and

12 instructions for identifying the translation as low  
13 quality if the current source language text is not  
14 reasonably equivalent to the original source language  
15 text.

1 20.A computer program product, in a computer readable  
2 medium, including a program for execution by a computer  
3 to perform the following steps:

- 4 a) receiving an original source language text  $SHLx_0$ ;  
5 b) setting a counter  $i$  to zero;  
6 c) performing machine translation on source language  
7 text  $SHLx_i$  to form target language text  $THLy_i$ ;  
8 d) performing machine translation on target language  
9 text  $THLy_i$  to form source language text  $SHLx_{i+1}$ ;  
10 e) increment  $i$  by one; and  
11 f) repeat steps (c) through (e) until  $SHLx_i$  is not

Docket No. RSW920000150US1

- 12 reasonably equivalent to  $SHLx_0$  or until  $i$  reaches an  
13 iteration threshold.

2025.04.04 09:52:00